



1

SEQUENCE LISTING

<110> Sun, Yongming  
Recipon, Herve  
Ghosh, Malavika  
Liu, Chenghua

<120> Compositions and Methods Relating to Colon Specific Genes and  
Proteins

<130> DEX-0255

<140> US 10/016634

<141> 2001-10-31

<150> US 60/244,258

<151> 2000-10-31

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<170> PatentIn version 3.1

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 tcggaatgtt cccttctgtt tgtcccttcc aggctggaca ctttgggagc agaagtcaaa 720  
 gacaccttta tcattgtacc ctacgacct ggtgtagtgc ctgggattta gtagttctga 780  
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 ccgtctgtag catgggaggg gcctggagca tagcagggcc tctcacgggc tttgntttca 180  
 gggtgacatt t 191

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 ggcccctccc atgctacaga cggcatgcta acggttgggt ggggggtcct gtaaatctca 480  
 ccaatgggtt ctgactcct tgacctgct cttaagcact gaccttcagg agcttgaagc 540  
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 aaaacaannn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
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	tctcagacaa	accattatta	ttttaaagga	tagaacaaaa	caatcgctag	ttaaggaaga	240
	tgttttgtaa	taattaaact	tgtaattatt	tgacttgaaa	tatttaatca	tttttttggg	300
	aaagaatgga	tagattttgt	taatgttagc	actcttaaaa	ttaagcagtG	gcttttttcc	360
	ccgtgtctcc	catattctcc	ttgtgtttga	aacataaaac	aaacactaaa	cctaagcaaa	420
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	aaaacttttt	atgattttta	tgataatgtt	ttgtggTggg	ttaaagacct	cctaacaaca	540

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 ccatgttggc caggctggtc ttgcactcct gacctcaggt gatccgcca cctcagcctc 300  
 ccaaagtgcg gggattacag gcctgagcca ctgtgcccag cctcaagta actcttaaac 360  
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 ctctgggagt tttcttccct agctgctcac ttccattatc aacgaaatat tctcttcac 540  
 gcctttttac cttataccta caacatgctc agttctctct ctttacaaga aaatataagt 600  
 tttcaccaac ctatttatca aatttacatc cccctccctt tctacttcct tttgtaaaaa 660  
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 actgtggctc tccaccatgt gagctcaacc tatcatcaca actgtatctc ccctaacact 780  
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 ccaaggccac ccggaacaca tcttttctc ttccctaaat aaattctact ggattctttc 960  
 tgtttttcac tggaaacttc tcatactcca ttgggttcctt tctcatgaca tttattttac 1020  
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 tattctcaac attgaattcc atcttatact caaagaataa tactttaaca tagccattgt 1200  
 tcatagtgtg tatataatta agaacacatt ccatattttt cttgagatta tatagtgtta 1260

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cctcagcttc tccttcatat ttccctgacgt attgtcttct aagccttcag agaacaaggc	1440
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aacctggcta taaaatatta ccaatttcta aggggggtatt tatgttgact gtatataaat	1620
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tcattaaaaat cataaaaagt tttcttttat tgtaatagtt gagggaaaaa ctcacctcaa	2040
ttatgaaaac aaaccagca acttttgctt aggttttagtg tttgttttat gtttcaaaca	2100
caaggagaat atgggagaca cggggaaaaa agccactgct taattttaag agtgctaaca	2160
ttaacaaaat ctatccattc tttcccaaaa aaatgattaa atatttcaag tcaataaatt	2220
acaagtttaa ttattacaaa acatcttctt taactagcga ttgttttggt ctatccttta	2280
aaataataat ggtttgtctg agagtatgtc tctaaacac ctttgcatat ctgccttgag	2340
gtactagaaa accaggacaa attctagtgt gtgcaaaata aatttaagct acatatcaaa	2400
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aaaataattg tcaccatggc aga	2483

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tctgcatgta ctctagggtt gggtaaagaa gggaacaagg gaatggggaa acgtagagat	180
tcctggacta acagagaaag acagcttgag aataaaagta tgcaaaagat aatctacaac	240
aaaataatgc acttaactct tgttactaaa caaataagct acccacattt cagcttatct	300
gtatttgttt catgatttgt cagctatcta gcaactatct tagtcactga ttcggaacga	360



cttagcagtg gttattgcat agaacaactc cttacacaga gatttgcaag ctttctgaac 420  
 tttcgtactt tcaaattgaa aatcaggaga aacattttca acggcttcat attcagacca 480  
 agattagtat attaacaact aataacaata ttaaaagtta gaacaattcc tttcctctat 540  
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 agtaccagtt taacacataa aaagtgatca aggtgcaagg gacacagctt tgaaatagtc 180  
 agacctggat ctgaatctgt gattctgtca tctgcaataa gtttctaact tctccaagcc 240  
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 ttactc 306

<210> 36  
 <211> 617  
 <212> DNA  
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 tctttcattt tcaactttctt ccttacactt gcaatccaga gtccagatgt aaaacagtgt 180  
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 gtacaagaat tcagggatgc aaggatgcct tctgcaaga cagagatcat tctatctaaa 420  
 ccaatgtttt cagggttttt actaggagca catgcatgaa tgtgtatata tgtgtatagc 480  
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 taatgtttac cacatgc 617

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 gtacaagaat tcagggatgc aaggatgcct tctgcaaga cagagatcat tctatctaaa 420  
 ccaattgttt tcagggtttt tactaggagc acatgcatga atgtgtatat atgtgtatag 480  
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 taatgttaac cacatgctat atacttatat tttcttttca ttgcaaaag aatgctgtta 660  
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<210> 38  
 <211> 90  
 <212> DNA  
 <213> Homo sapiens

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 <212> DNA  
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 gcctctcctt ggcttgcaag atggccacct tctggtctgtg tctctctct catggccttt 180  
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 <213> Homo sapiens

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 aaacagagag cttccaggag gatcaatgcc attcaatgag cttgctgctg tactccccctc 180  
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 atacaataga aagatcctgg aatcccgaca tgaggacaaa aatgggtactg aattcttttt 180  
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<212> DNA  
<213> Homo sapiens

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<211> 251  
<212> DNA  
<213> Homo sapiens

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taatgctact gaacagctac agagcactcc tctgaactca ctggaatggg ctatatccca 180  
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agaaatcccg a 251

<210> 45  
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<212> DNA

<213> Homo sapiens

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acaaagaata agattgggca catagatggc agttccatct tctcacgttg tatgccaag      360

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383

&lt;210&gt; 52

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&lt;212&gt; DNA

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&lt;400&gt; 52

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 cttctggccc ctgaacgttc cccccaggc ccgtttccag ggaaagggat aggcaggcgc 180  
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 <213> Homo sapiens

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gcaggctgtc agccacgggc aagctttctg aaaaagacgt gccaaactgca gccacagaaa 540
gtccattccc ttgaataact ctgctaatat ttgaaaatta gttcccttgc tcctgatcat 600
gctactgggt atttggatat aagagccaag gatgagggca atagaaaatt aaaatcatgt 660
tctactcata taaactgcac agatatggaa gggtaggtcc tattacctat aatcctggga 720
tttttagact ctacttttca ttggaccaga gttgccttag ggacagtaaa aacacaaaat 780
gctgggtatt gttttcatca agcaactact gatagtgcac atttaaataa aaattcttct 840
aatcccaaac tcagtaaaca gatgctgtga gcttagttct gccctctctg cttcagattt 900
taccctactg gatgtgccc attctgagat gacaagacgc ttccagcttc cacatggttg 960
caatttggct gtggaactgg catgaaagca cgtcactgtg tcagcacctg ggccaccaga 1020
tgaataacct atgaacaaca gctttggact aaaatatgaa ggggttggtt tccttcaatc 1080
tcccctacc ttctcagaa cctgctacaa ggaaagattt atagactcga aagcgtcaat 1140
gactgattag acccatatga ttgctcctgc tgtttctgat attttaaaaa attgtcttat 1200
aaangnataa aaataa 1216

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<210> 66
<211> 1430
<212> DNA
<213> Homo sapiens

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<400> 66
gctcaccaat gtgggtgggc ctcatccaat ccattgcaga cttgaataga actaaaagga 60
agaggaaggg caaatgtgtt ggctgcttga gctgggatat tcattcttct cctgatcttg 120
gacatcagaa ctctgattc tcaagccttt gggtttggac tggaggcacc agctttcctg 180
ggctccagc ttgcagatgg catatcatgg aacttctcag cctccaaatt cataactcta 240
atacaccagt acaatggaaa gattcctaaa ttcaaaagcc agaaggctgg gttcctgttc 300
ccacctgcc ttttaccttc tgtgtgttcc tgatgaagac acttcatgct ccactattta 360
cttacctctg aaacgaaggg ctgaccacga tcagttgttc tctgacctgc ttggagggac 420

```

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tcagaggctg tggagagtga atatttccat cagctgatgc ccttctcagg cctcaatctc 480
ccctgggttg cagactgtgg ccctccttgg cctctgtgga atctggccat ttgaatcctg 540
tcagccctgt tttccatcac caaaggactc cggaggaact gtgccaagca ggctgtcagc 600
cacgggcaag ctttctgaaa aagacgtgcc aactgcagcc acagaaagtc cattcccttg 660
aataactctg ctaatatattg aaaattagtt cccttgctcc tgatcatgct actgggtatt 720
tggatataag agccaaggat gagggcaata gaaaattaaa atcatgttct actcatataa 780
actgcacaga tatggaaggg taggtcctat tacctataat cctgggattt ttagactctc 840
actttcattg gaccagagtt gccttaggga cagtaaaaac acaaaatgct gggatttgtt 900
ttcatcaagc aactactgat agtgcacatt taaatcaaaa ttcttctaata cccaaactca 960
gtaaacagat gctgtgagct tagttctgcc cctctggctt cagattttac ccactggat 1020
gtgccaatt ctgagatgac aagacgcttc cagcttccac atgggttgcaa tttggctgtg 1080
gaactggcat gaaagcacgt cactgtgtca gcacctgggc caccagatga ataacctatg 1140
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taaataatca atggcaaaact tctggcatgg gagagacatt tagggaaaga agtcatctca 1380
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<210> 67
<211> 430
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (72)..(139)
<223> n=a, c, g or t

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<400> 67
gggatattca tctttctcct gatcttggac atcagaactc ctgattctca agcctttggg 60
tttggcctgg annnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120
nnnnnnnnnn nnnnnnnnnt aactctaata caccagtaca atggacagat tcctaaattc 180
taaagccaga aggctggggt cctgttccca ccctgccttt taccttctgt gtgttctga 240
tgaagacact tcatgtctca ctatgtactt acctctgaaa cgaagggtg acccagatca 300
gttgttctct gacctgcttg gagggactca gaggctgtgg agactgtggc ctccttggc 360
ctctgtggaa tctggccttt gaatectgtc agccctgttc tccatcacca aaggaatccg 420

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gaggaactgt

430

<210> 68  
 <211> 829  
 <212> DNA  
 <213> Homo sapiens  
  
 <220>  
 <221> misc\_feature  
 <222> (240)..(354)  
 <223> n=a, c, g or t

<400> 68  
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 agaagggagt cttatTTTTT tccgacttca gacaattcat cttcatccat taatTTTTcc 120  
 tttttgtaat atgtaccttt atgctaattt ttaatatgca aataacttac aaatatatgc 180  
 tcagcatttg agtacaggct gtgctttatt acatattaca tgcattgtatg caatgtactn 240  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnacaaaa 360  
 taaaatttgg aatgaagcag gaattatctt ggactattta taatttatta agatactaaa 420  
 taccgtcatt atgaaatggt ctcattaagt gatccctgtc taaagagttg cataatagtg 480  
 agacaataag gggcttagtg tattTTTTTT cttttgaaca taagctattg tacatttgtg 540  
 ccaacaggac ttcttttatag agtctcattt tctattaca atattatttt tgttattaag 600  
 tgaaacacct catatcacca ccaactgctga gccagatata atagactgta ctgtgtaagg 660  
 ttctttaaac tcacatctat aataaccaga cctctTTTTT tatattgatt caaattatgt 720  
 ttaatgctga attataagca aaacctacaa gaataaaatc attttatgct ttgaaactga 780  
 ctctTTTTTT aaaaaaagaa tgatcacaaac taccaactcc ctcatctat 829

<210> 69  
 <211> 541  
 <212> DNA  
 <213> Homo sapiens

<400> 69  
 atagactagt aaagtctgtt tttatataaa agtgacacag gaagctgtta caatctagga 60  
 atgggcaggt atggtcagtg gttgtcacia tagagccacc caaggagaca tctcttctcc 120  
 agatcctaac agagtgcac ttgtgctttt cctaacagac ctgtcggact ggctttttct 180  
 cttttaagga tatagagaaa gcaaaattag caaatctagt ttcttgtcac ttactagga 240  
 gggaggaaaa gagagaaaga atgcacttgg gaatgggagg ccttgctttt aatttaccag 300

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atgccagtta gagcgттаат gccacacgag ccagagaggt caccttgctg agcatggctt 360
gactgttgca gcctctttct gcgactccag acatgcgatg tctgttagct gattctagcc 420
ttcagatgca gcccggagat gtaaccctga ggctggagtc ctgtggctct aatcccagac 480
agaggcaact ccaccaagtt ctggtttggg tcagaaatag agggaaagga tgaatgaaag 540
a 541

```

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<210> 70
<211> 696
<212> DNA
<213> Homo sapiens

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<400> 70
atagactagt aaagtctggt tttatataaa agtgacacag gaagctgtta caatctagga 60
atgggcaggt atggtcagtg gttgtcacia tagagccacc caaggagaca tctcttctcc 120
agatcctaac agagtgcac ttgtgctttt cctaacagac ctgtcggact ggctttttct 180
cttttaagga tatagagaaa gcaaaattag caaatctagt ttcttgctac ttactagga 240
gggaggaaaa gagagaaaga atgcacttgg gaatgggagg ccttgctttt aatttaccag 300
atgccagtta gagcgттаат gccacacgag ccagagaggt caccttgctg agcatggctt 360
gactgttgca gcctctttct gcgactccag acatgcgatg tctgttagct gattctagcc 420
ttcagatgca gcccggagat gtaaccctga ggctggagtc ctgtggctct aatcccagac 480
agaggcaact ccaccaagtt ctggtttggg tcagaaatag agggaaagga tgaatgaaag 540
aagatacaaa gaaataatga acaagtгagt tctttcagct gcttacttgg gtgggtctgca 600
ggcagcaaga gacaggaagg aggctgttgt ggggtccttg ttcgaggcag tgggagattt 660
gctcagaggg gttgtgtggg aagtгagaga aggggt 696

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<210> 71
<211> 1207
<212> DNA
<213> Homo sapiens

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<220>
<221> misc_feature
<222> (957)..(957)
<223> n=a, c, g or t

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<400> 71
gcagtgccag gacctctccc ggaggcgggg cagagcagca gcttctcggc cctgtgccga 60
gccaggcct gcacccctaa ggcaggcact gctccgtgat ccaggaacca cctctctcta 120
cagctgggag tgagcagtea gagagggaga cagccttgcc cggtgctacc cagcaagcta 180
gtcaccgagt gggcagaggg aggagcggcc ctcaccgat gtcaagcagc ctgggtcccc 240

```

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agtcagctc tgccgtgtccc tcgcaataac gcctcagtga cgaccatttg tgagccatct      300
ctctgtctca ggcacgggtgc tacatgccaa cgaaacctgc tcccattgaa ccctggccag      360
ccagtgaaga aaggggttggg cctgggaggt gccactttac agacaggggc accaaggggc      420
aggggtggcag gagggcccacc ggacgttccc catgaagtag cagtcccagc atccacaccc      480
agcaggcacc acgctggccc gcagcctccc tgccagcacg cctggcttcc cggcctcgga      540
acttgatctg ctccctcttc cggacactgg ggctcctgcc aagtcctggg ctgggcagca      600
actgctgaac attctaagaa atccctccca gggttttctc aggagcccgg gtggggcagg      660
aagtccccag gggctgaggg gaccgtggcg gcaggtggca ccagagcag cactctctg      720
gggcccaggc tgttgggcca gaggcaggac tgtgaggcct agtgtagggc ctctgccag      780
tgcccggcac ctacttgtgg ggctgggggt tccccagca ggttgggctc cccacctgac      840
acactcacag accttgtgcc ttggagagcc agtgttcccg gggccacata gctatgccg      900
ccaggggctg ggccgtgtccc agctctggtc ccccgcccc aggtcctgga cgctggntcc      960
gcgcagcagc aggcggcctc cggaggacac gatgtgactg gctgccgcta cgtcgcactc     1020
agatgagtct gcgccggatc gacctgctgc cgagtcctgc cggacaggca caggcaggga     1080
gtgaaaatta tctaccctt tttatttctt aataactgaa tgaaaataaa cattggtggt     1140
ttgacaaata actacatatt ttcaaacca gccagtccag gggatgcagt ttccagggtgc     1200
gttatgc                                           1207

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<210> 72
<211> 263
<212> DNA
<213> Homo sapiens

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<220>
<221> misc_feature
<222> (231)..(231)
<223> n=a, c, g or t

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<220>
<221> misc_feature
<222> (239)..(239)
<223> n=a, c, g or t

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<220>
<221> misc_feature
<222> (242)..(242)
<223> n=a, c, g or t

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<220>
<221> misc_feature

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<222> (248)..(248)  
 <223> n=a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (259)..(259)  
 <223> n=a, c, g or t

<400> 72  
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 cattttactt tacctgtcta cagtgttttg cgcaattgac cactccttcc tttttgaagt 120  
 attttctttc cttggtttct gaaatactgt tatcttctta tctcactggc catacattct 180  
 agtctccttt gctagtatat tatgggtttc atcttctcaa caacaatttt ntttttttng 240  
 gnggagangg agtcttgcna tgt 263

<210> 73  
 <211> 579  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (547)..(547)  
 <223> n=a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (555)..(555)  
 <223> n=a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (558)..(558)  
 <223> n=a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (564)..(564)  
 <223> n=a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (575)..(575)  
 <223> n=a, c, g or t

<400> 73  
 tgggtgttga gtccataaaa ttgtatacca gtgctaattg ggatatacca aactttttgt 60  
 ctcttagtaa ttagtatttg tttgttttgg tttgttttaa tgttgtgctt atcttaaggt 120

gtaaatgcag acaaagttgg aattgaagct gccgaaatgc tattagcaaa tcttagacat 180  
 ggtggtactg tggatgagta tctgcaagac caggtaatga cacatttagg ttaaaaaccc 240  
 tctaacctgt tagatttgaa tatgtggtag attgaatata aatttaaata attgactttc 300  
 agacactaat tagcaagtc tacttcaata atttaaaaaa atattctggg atttgcatc 360  
 ctcaaatttc agccctcatt ttactttacc tgtctacagt gttttgcgca attgaccact 420  
 ccttcctttt tgaagtattt tctttccttg gtttctgaaa tactgttata ttctatctc 480  
 actggccata cattctagtc tcctttgcta gtttattatg gttttcatct tctcaacaac 540  
 aattttnttt ttttngngg aganggagtc ttgcnatgt 579

<210> 74  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

<400> 74  
 ctctgttcct tgctcatctt catggtgatt gggggtagat cagatgagtg tgtaaaagcc 60  
 ccttgaaagc tggaaagagc ttaacaaata tcagctgttg ccatgaaaga atatttgctt 120  
 actttccatt gtgtataaga taacgataat catagaatta atattattca acttccttgt 180  
 gtcttttgca catttctgta cagtccctgtt tttgtttgtt actgtcatc tcaaagtact 240  
 caagttgaat tttgtcactt tggatttctt ccaggaatat gtgagagaca tttaggtctc 300  
 taatgatgaa gtattttcta ggcgtaatgc aaaagattg 339

<210> 75  
 <211> 299  
 <212> DNA  
 <213> Homo sapiens

<400> 75  
 caacgacaga taacttcgtg atggaaaatg taggtctcct tagtagttag ccctctgcca 60  
 ggtgacttcg ttccacctc cccttatata ttgttcttcc ttctctcta aattctctaa 120  
 atctctgctt atacagagca atctggctct ctctggctc tccagtcac atacatcata 180  
 ctacattca ccatcttgag aagtgcagta agccacataa atgcagcaga agtaccttat 240  
 gcagtcctag gaggtgtgg ttttgagttg cttttttttt tcttttggga gacggagcc 299

<210> 76  
 <211> 247  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature

<222> (174)..(174)  
 <223> n=a, c, g or t

<400> 76  
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 gtttaatcct cattacaatt ctgtggtaaa tgctattatc tgtttttata ttgaagggat 120  
 gaaatggagg ctacagaggga tatgtagtag ctaaattgta gagctaggat tganacccaa 180  
 attgacttct gagtatagat ttccccccaa ctgtatgata cttcatattt ggagtcagct 240  
 tgaagta 247

<210> 77  
 <211> 254  
 <212> DNA  
 <213> Homo sapiens

<400> 77  
 tgtatatttg agctcctact gtgtggcaag gcctatggta agcattttat tttggtaact 60  
 tgtttaatcc tcattacaat tctgtggtaa atgctattat ctgtttttat attgaaggga 120  
 tgaaatggag gctcagaggg atatgtagta gctaaatgtt agagctagga ttgaaaccca 180  
 aattgacttc tgagtataga tttcccccca actgtatgat acttcatatt tggagtcagc 240  
 ttgaagtaat tcac 254

<210> 78  
 <211> 504  
 <212> DNA  
 <213> Homo sapiens

<400> 78  
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 acaatactaa gaattccatt ctttagagac aaattactta gaagttgata gtgacatatt 120  
 gaaagggttg ttgattgttg gattattcag gtgatgaaga tgatggtagg ggccatggcg 180  
 gctgaggggag aatgagtctt aaacactgag gaggcacaaa agattgggtg gctggatata 240  
 ataggaaact ggaacgaaag aaggagaaga gaatggcgat actgataaaa aatagaatga 300  
 aagaagatgt gtggaaaaga aagtttcact ttgaaggctt gatttttgaa gtgatggcag 360  
 atatagatat acatccaata gatgagtggg aaaagtaaat caaacagaaa tgaaaaattg 420  
 agtccaagat tgatgggaga ctaataatgg ggaggactga gcctgggggc aactacatta 480  
 gtaacagtgg caggttttgt tttt 504

<210> 79  
 <211> 210  
 <212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (80)..(99)

<223> n=a, c, g or t

<220>

<221> misc\_feature

<222> (173)..(173)

<223> n=a, c, g or t

<220>

<221> misc\_feature

<222> (175)..(175)

<223> n=a, c, g or t

<220>

<221> misc\_feature

<222> (206)..(206)

<223> n=a, c, g or t

<400> 79

gtccctctag agaaccctga ctaatacagg tggttcctgg ctcattggcag tgtgactcca 60

gtctttacat ggcgttcccn nnnnnnnnnn nnnnnnnnnc aaatttcttc ttttcataag 120

gaccgtggta ttggataggg gtccacccta ctccgatatg accttatttt aantncatct 180

ttgatgaccc tgtttccacg taaggncaca 210

<210> 80

<211> 161

<212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (116)..(116)

<223> n=a, c, g or t

<220>

<221> misc\_feature

<222> (148)..(148)

<223> n=a, c, g or t

<400> 80

gagggtcaga agcagaaaga tgacatcata agaaagactc aactggccat ttttggcttt 60

gaaggtggaa aggggacctg agtccaggca tgtgggcagc ctggagaagg cgaganaatg 120

gattcttccc cagaatccct ggaaaggnac gtggccctaa c 161

<210> 81  
 <211> 112  
 <212> DNA  
 <213> Homo sapiens

<400> 81  
 tagcaccttt taataactct ttttagagta atttagagca aactagataa attttaatat 60  
 atatctcatt gcatactttt atgtaacttt gtcttagaaa aacaagagtt ct 112

<210> 82  
 <211> 277  
 <212> DNA  
 <213> Homo sapiens

<400> 82  
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 gacaatttaa aaacctatac aaagagtgac acataaataa acaaaaacaa cataaaaaata 120  
 aaaatataat tctaaaaata ttcaagtagc caattggaag gtggaaaaaa gaaaaagaac 180  
 aaaaaataga acagcactaa acaaaaaata aaatcgcaga cctaggccct gacatatcaa 240  
 taattatatt aacatgtaaa tgggtctaaat tttacca 277

<210> 83  
 <211> 637  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> misc\_feature  
 <222> (7)..(7)  
 <223> n=a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (92)..(196)  
 <223> n=a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (232)..(316)  
 <223> n=a, c, g or t

<220>  
 <221> misc\_feature  
 <222> (367)..(427)  
 <223> n=a, c, g or t

<400> 83  
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 aactcagatg tattaatttc ctattgtgtc tnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120



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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180
nnnnnnnnnn nnnnnncaact ttctttctgt aggetctagg agagaatcta gnnnnnnnnn 240
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300
nnnnnnnnnn nnnnnnccaa gtcttctca cactgctgtc ttttggttc tctctctgc 360
ctgcctnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 420
nnnnnnnncat agttgattag cagccttaat ccatctgtaa ttttaattcc cttttgccag 480
gtaatgtggc cattatcttg cctacaacct cagaggatgt tgataatgta aagggtagtg 540
aattggggag ttcatagggg ttgatagttg acaatacag agtgtagtat taggtagggg 600
ttttttggca ggggtgcagt gcccatacct gtaatgt 637

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<210> 84
<211> 577
<212> DNA
<213> Homo sapiens

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<400> 84
caggcataag ccaccacacc tagccaagaa accattcttt gaacacaagc aaatatactt 60
tggagaaaaa ttttaataatc ctggcagggc tacattcaac ataattctgt tatgggggaa 120
ggcagcatgc tttggtgct cagtgaagta tgttctgtac aaccaagtga aattgctaaa 180
aaaagattct cctgtataca gtaacttaaa gtgatgcagt ctacttaaga tcagatctga 240
gttacaaaat caaaagtgac agctcctatg ttcttttaaa gtccaatctc ttttttcat 300
tgttgtgtc caaatgcctt gagtacctga tgtagagtag gtggctaata aatattgggt 360
gaatttcttg aacgaatctg ttatgaaaag atctactttg ctcatctctg tgccccaata 420
gcaggagctt gaggagaagg agaaaatatt gggtcagagc ttttgattaa tatgtatgat 480
tctattaaac gggttcacta aaccaaaaaa ggcaaggaaa acagttaaac caagagtctt 540
gaggttcaag tcttgtgatg attaaatcat catccta 577

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<210> 85
<211> 687
<212> DNA
<213> Homo sapiens

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<400> 85
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gctcagggct catggctgat attacaggca taagccacca cacctagcca agaaaccatt 120
ctttgaacac aagcaaatat actttggaga aaaatttaaat aatcctggca gggctacatt 180
caacataatt ctgttatggg ggaaggcagc atgctttggc tgctcagtga gctatgttct 240

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gtacaaccaa gtgaaattgc taaaaaaaga ttctcctgta tacagtaact taaagtgatg 300  
 cagtctactt aagatcagat ctgagttaca aaatcaaaag tgacagctcc tatgttcttt 360  
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 aagtctccta cgtcgtctaa ggcagagtaa gtagccttca gtactatatt ttactctaata 240  
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 <212> DNA  
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 <211> 496  
 <212> DNA  
 <213> Homo sapiens

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 ttacttcata gattcagtgt gtgacgaagg gagatgattt ttaacaaata ataaagttaa 240  
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 agcctttata gatttgccat gatcctaata catataagca ttcattgtat tcattattaa 180  
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 caggaaacaa ttgaaagcct tcaacatgtg tgggtggggg gagagataac tgaattaaca 240  
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caggaaacaa ttgaaagcct tcaacatgtg tgggtggggg gagagataac tgaattaaca 240

ggccatgtag taaaacttaa aatcaaattc agtagtcttg aaggtatagt aattgttttag 300

ttttgaaggt atagtaatta agtactgctc actaaaaaaa actgaccaa aggccgggtg 360

cggtggctca cgctgttaat cccagcactt tgggaggccg aggcggggcg atcacctgag 420

gtcaggagtt cgagaccagc ctggccaaca tgggtgaaacc ccgtctctac taaaaacaca 480

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 gcatgatgca catagaacaa tgcctagcac atagtagaga tacataatca ctactatata 300  
 ctggtaccag tananggtca ggtcttatgg acctaaaggtc atataactta gtctcttcca 360  
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<210> 103  
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<400> 104

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<213> Homo sapiens

<400> 105

Met Thr Thr Lys Lys Gln Glu Glu Cys Glu Ser Leu Lys Asp Lys Gln  
1 5 10 15

Lys Ala Thr Lys Gln Ser Ile Ser Phe Cys Ile Tyr Ile Ile Lys Val  
20 25 30

Lys Phe Ser Thr Leu Ala Thr Asp Tyr Lys Ser Val Pro Ser Gly Cys  
35 40 45

Cys

<210> 106  
<211> 61  
<212> PRT  
<213> Homo sapiens

<400> 106

Met Pro Ser Pro Ser Ala Pro Ser Ile Val Pro Val Leu His Gly Cys  
1 5 10 15

Trp Val His Ile Cys Gln Ala Asp Val Tyr His Thr Leu Leu Lys Gly  
20 25 30

Phe Lys Ser Val Phe Glu Thr Glu Ser His Val Val Ser Pro Arg Leu  
35 40 45

Glu Cys Asn Gln Ser Lys Thr Pro Leu Lys Lys Asn Lys  
 50 55 60

<210> 107  
 <211> 34  
 <212> PRT  
 <213> Homo sapiens

<400> 107

Met Glu Leu Val Met Glu Trp Lys Leu Thr Ile Cys Ser Pro Lys Cys  
 1 5 10 15

Ala Thr Thr Thr Gln Gly Leu Gln Thr Asp Ser Tyr Leu Asp Val Val  
 20 25 30

Glu Ser

<210> 108  
 <211> 77  
 <212> PRT  
 <213> Homo sapiens

<400> 108

Met Val Asn Pro Ala Gln Glu Met Thr Leu Ser Arg Asn Thr Cys Lys  
 1 5 10 15

Tyr Lys Lys Gln Asp Ile Leu Pro Gln Leu Arg Ser Asp Lys Ile Thr  
 20 25 30

Leu Gly Lys Leu Gln Gly Gln Cys Ala Ser Lys Thr Lys Ser Leu Val  
 35 40 45

Ser Ser Leu Thr Ser Tyr Leu Pro Ala Phe Ile Ile Ile Ser Leu Ser  
 50 55 60

Val Thr Gln Tyr Leu Val Asn Phe Leu Phe Trp His Thr  
 65 70 75

<210> 109  
 <211> 59  
 <212> PRT  
 <213> Homo sapiens

<400> 109

Met Gln Cys Lys His Phe Phe Leu Thr Tyr Leu Thr Asp Gln Gly Gly  
 1 5 10 15

Ser Leu Trp Arg His Asn Pro Asn Cys Glu Leu Leu Asn  
35 40 45

<210> 112  
 <211> 64  
 <212> PRT  
 <213> Homo sapiens

<400> 112

Met Leu Lys Met Ile Leu Ala Ser Ile Val Ile Asn Ser Val Ile Pro  
 1 5 10 15

Glu Phe Phe Val Ser Pro Arg His Thr Asn Phe Cys Pro Leu Leu Leu  
 20 25 30

Phe Ser Gln Ser Phe Leu Leu Ala Phe Leu Ser Asn Arg Val Leu Leu  
 35 40 45

Thr Pro Tyr Ile Pro Phe Trp Leu Val Arg Val Ser Phe Ser Ser Ser  
 50 55 60

<210> 113  
 <211> 25  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MISC\_FEATURE  
 <222> (14)..(14)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (17)..(17)  
 <223> X=any amino acid

<400> 113

Met Leu Leu Phe Thr Lys Leu Leu Ile Ile Met Val Ile Xaa Ile Asn  
 1 5 10 15

Xaa Asn Asn Lys Leu Leu Gln Leu Phe  
 20 25

<210> 114  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 114

Met Arg Ile Gln Asn Leu Thr Cys Leu Leu Leu Gly Ser Lys Glu Met  
 1 5 10 15



Ser Thr Ser Ser Pro Leu Thr Pro Asn Gly Val Glu Gly Phe Gly Pro  
 20 25 30

Gln His Cys Val Thr Tyr Ser His His Asp Phe Leu Ala Gln Val Thr  
 35 40 45

Pro Ser Val Lys Trp Lys Arg Glu Glu  
 50 55

<210> 115  
 <211> 147  
 <212> PRT  
 <213> Homo sapiens

<400> 115

Met Asn Glu Ser Trp Ala Gly Pro Gly Pro Ala Glu Arg Ala Glu Glu  
 1 5 10 15

Ala Val Ser Gly Val Gly Val Glu Ala Lys Thr Gln His Ala Gly Gln  
 20 25 30

Gly Ala Gln Pro Gly Gly Met Gly Cys Gly Phe Ser Ser Gly Pro Ile  
 35 40 45

Gly Met Ala Leu Gly Leu Gly Leu Val Gly Thr Ala Ala Thr Arg Gly  
 50 55 60

Gly Ser Ser Ala Trp Pro Asp Ser Thr Cys Asn Val Gly Arg Gln Trp  
 65 70 75 80

Ala Pro Pro Gly Gly Arg Asn Thr Val Arg Ser Met Gln Arg Ala Gly  
 85 90 95

Asp His Gly Ala Cys Asp Leu Arg Ala His Pro Gly Gln Thr Trp Val  
 100 105 110

Arg Gly Gly Leu Gly Arg Gln Asp Ser Glu Gly Leu Gln Gly Val Phe  
 115 120 125

Val Leu Cys Pro Tyr Thr Gly Asp Leu His Gly Arg Val Arg Ser Ile  
 130 135 140

Arg Met Leu  
 145

<210> 116

<211> 73  
 <212> PRT  
 <213> Homo sapiens

<400> 116

Met Thr Ile Ser Leu Cys Ala Thr Asn Leu Pro Arg Ala Ala Thr Val  
 1 5 10 15

Leu Arg Met Lys Pro Lys Leu Pro Gly Ser Gly Pro Val Gln His Glu  
 20 25 30

Pro His Leu Pro Ser Gln Pro Gln His Pro Leu Leu Phe Phe Gln Ala  
 35 40 45

Gly Gly Lys Leu Glu Ala His Pro His Phe Thr Gln Thr Leu Gly Ile  
 50 55 60

Pro Ile Ser Gly Asn Arg Gly Val Phe  
 65 70

<210> 117  
 <211> 48  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MISC\_FEATURE  
 <222> (46)..(46)  
 <223> X=any amino acid

<400> 117

Met Tyr Asn Ile Leu Lys Ala Phe Asp Lys Ile Val His Ile Ile Ser  
 1 5 10 15

Asn Thr Ile Leu Tyr Tyr Tyr Gln Gln His Lys Ala Asn Val Ser Lys  
 20 25 30

Asn Ser Arg Leu Arg Ile Ser Lys Asn Ser Pro Arg Ala Xaa Phe Arg  
 35 40 45

<210> 118  
 <211> 38  
 <212> PRT  
 <213> Homo sapiens

<400> 118

Met Leu Pro Val Ser Pro Thr Leu Lys Glu Arg Asn Gln Arg Arg Met  
 1 5 10 15

Leu Leu Lys Ser Thr His Leu Ala Ser Val Ser Ser Ala Ser Cys Thr  
                   20                  25                  30

Gln Thr Lys His Thr Gly  
           35

<210> 119  
 <211> 55  
 <212> PRT  
 <213> Homo sapiens  
 <400> 119

Met Lys Ile Phe Ile Ile Ile Leu Ser Pro Leu Cys Gly Ile Leu Leu  
   1                  5                  10                  15

Asn Val Leu Glu Ser Leu Lys Phe Ile Phe Lys Cys Glu Ser Leu Leu  
                   20                  25                  30

Phe Val Trp Gly Glu Glu Cys Gln Val Gly Ile Met Asn Gln Ala Leu  
           35                  40                  45

Pro Tyr Gln Val Leu Leu Tyr  
       50                  55

<210> 120  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens  
 <400> 120

Glu Ser His Thr Leu Gln Val Ile Leu Gly Cys Glu Met Gln Glu Asp  
   1                  5                  10                  15

Asn Ser Thr Glu Gly Tyr Trp Lys Tyr Gly Tyr Asp Gly Gln Asp His  
           20                  25                  30

Leu Glu Phe Cys Pro Asp Thr Leu Asp Trp Arg Ala Ala Glu Pro Arg  
           35                  40                  45

Ala Trp Pro Thr Lys Leu Glu Trp Glu Arg His Lys Ile Arg Ala Arg  
       50                  55                  60

Gln Asn Arg Ala Tyr Leu Glu Arg Asp Cys Pro Ala Gln Leu Gln Gln  
   65                  70                  75                  80

Leu Leu Glu Leu Gly Arg Gly Val Leu Asp Gln Gln  
                   85                  90

<210> 121  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens  
  
 <220>  
 <221> MISC\_FEATURE  
 <222> (51)..(72)  
 <223> X=any amino acid

<400> 121

Met Ile Lys Val Ser Leu Thr Ser Ala Pro Lys Val Ser Ser Leu Glu  
 1 5 10 15

Gly Thr Asn Arg Arg Glu His Ser Asp Thr Gln Gly Pro Leu Ser Val  
 20 25 30

Pro Trp Lys Pro Ser Asp Leu Cys Arg Pro Ile Ser Val Arg Lys Trp  
 35 40 45

Val Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 50 55 60

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Arg Thr Thr Gln Ser Ser Trp Gln  
 65 70 75 80

Ile Leu Asn Lys Gly  
 85

<210> 122  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MISC\_FEATURE  
 <222> (15)..(15)  
 <223> X=any amino acid

<400> 122

Met Gly Gly Ala Trp Ser Ile Ala Gly Pro Leu Thr Gly Phe Xaa Phe  
 1 5 10 15

Arg Leu Thr Phe  
 20

<210> 123



70

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ile Trp Lys Ile Cys  
 35 40 45

<210> 125  
 <211> 95  
 <212> PRT  
 <213> Homo sapiens

<400> 125

Met Ser Ser Tyr Met Ile Asn Lys Phe Leu Pro Ile Lys Lys Val Lys  
 1 5 10 15

Ile Pro Gly His Lys Val Phe Ser Thr Asp Ile Met Phe Leu Lys Phe  
 20 25 30

Val Ser Ile Ala Thr Leu Leu Arg Arg His Thr Asp Ile Ser Glu Asp  
 35 40 45

Leu Arg Val Leu Gln Asn Thr Glu Lys Ile Ser Arg Arg Lys Gly Lys  
 50 55 60

Gly Glu Thr Lys Lys Leu Lys Glu Gly Leu Thr Tyr Lys Trp Asn Asp  
 65 70 75 80

Leu Lys Arg Asn Gly Glu Pro Gly Glu Thr Gly Val Ser Gln Ser  
 85 90 95

<210> 126  
 <211> 48  
 <212> PRT  
 <213> Homo sapiens

<400> 126

Met Ile Lys Tyr Phe Lys Ser Asn Asn Tyr Lys Phe Asn Tyr Tyr Lys  
 1 5 10 15

Thr Ser Ser Leu Thr Ser Asp Cys Phe Val Leu Ser Phe Lys Ile Ile  
 20 25 30

Met Val Cys Leu Arg Val Cys Leu Leu Asn Thr Phe Ala Tyr Leu Pro  
 35 40 45

<210> 127  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

<400> 127

71

Met Glu Phe Arg Ser Val Ala Gln Val Gly Val Gln Trp Arg Asp Leu  
1 5 10 15

Gly Leu Leu Gln Pro Leu Pro Leu Gln Phe Lys Gln Phe Tyr Cys Leu  
20 25 30

Ser Leu Ser Ser Ser Trp Asp Tyr Arg His Ser Pro Pro His Pro Ala  
35 40 45

Asn Phe Leu Tyr Phe Ala Lys Ile Leu Tyr Ile Ala Lys Arg Phe His  
50 55 60

His Val Gly Gln Ala Gly Leu Ala Leu Leu Thr Ser Gly Asp Pro Pro  
65 70 75 80

Thr Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Leu Ser His Cys Ala  
85 90 95

Gln Pro

<210> 128  
<211> 50  
<212> PRT  
<213> Homo sapiens

<400> 128

Met Gly Lys Arg Arg Asp Ser Trp Thr Asn Arg Glu Arg Gln Leu Glu  
1 5 10 15

Asn Lys Ser Met Gln Lys Ile Ile Tyr Asn Lys Ile Met His Leu Thr  
20 25 30

Leu Val Thr Lys Gln Ile Ser Tyr Pro His Phe Ser Leu Ser Val Phe  
35 40 45

Val Ser  
50

<210> 129  
<211> 16  
<212> PRT  
<213> Homo sapiens

<400> 129

Met Leu Leu Phe Val Leu Ser Leu Val Phe Gln Tyr Gln Phe Asn Thr  
1 5 10 15

<210> 130  
 <211> 54  
 <212> PRT  
 <213> Homo sapiens

<400> 130

Met Ala Leu His Cys Phe Thr Ser Gly Leu Trp Ile Ala Ser Val Arg  
 1 5 10 15

Lys Lys Val Lys Met Lys Glu Lys Val Glu Gln Ile Leu Ala Thr Glu  
 20 25 30

Pro Pro Glu Asp Ser Cys Pro Phe Ser Asn Lys Leu Ser Gly Lys Cys  
 35 40 45

Cys Cys His Gly Ser Thr  
 50

<210> 131  
 <211> 41  
 <212> PRT  
 <213> Homo sapiens

<400> 131

Met Cys Ala His Lys Gly Lys Ala Met Arg Glu Arg Thr Gln Pro Glu  
 1 5 10 15

Gly Gly His Leu Ala Ser Gln Gly Glu Ala Leu Arg Glu Thr Lys Pro  
 20 25 30

Ala Arg Leu Gly Thr Val Ala His Gly  
 35 40

<210> 132  
 <211> 35  
 <212> PRT  
 <213> Homo sapiens

<400> 132

Met Ala Leu Ile Leu Leu Glu Ala Leu Cys Phe Gly Leu Ile Ile Cys  
 1 5 10 15

Met Asn Arg Glu Ser Ile Ser Thr Leu Ile Phe Tyr Lys His Trp Met  
 20 25 30

Ser Ile Leu  
 35



<210> 133  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 133

Met Phe Asn Ala Tyr Leu Leu Tyr Asn Asn Gln Val Ile Thr Val Gln  
 1 5 10 15

Ile Lys Gly Pro Lys Cys Phe Arg Tyr Asp Ile Ile Leu Ser Ile Val  
 20 25 30

Asn Trp Thr Lys Glu Thr Leu Tyr Val Gln Gly Ser Val Glu Gln Pro  
 35 40 45

Trp Cys Ser Trp Asp Met Leu Pro Arg Cys  
 50 55

<210> 134  
 <211> 27  
 <212> PRT  
 <213> Homo sapiens

<400> 134

Met Met Lys Leu Cys Phe Thr Ala Ser Leu Leu His Gly Ala Leu Leu  
 1 5 10 15

Trp His Leu Ala Thr Thr Asn Ser Leu Ile Pro  
 20 25

<210> 135  
 <211> 46  
 <212> PRT  
 <213> Homo sapiens

<400> 135

Met Glu Leu Pro Ser Met Cys Pro Ile Leu Phe Phe Val Thr Val Phe  
 1 5 10 15

Phe Met Tyr His Thr Pro Ser Cys Pro Ser Ser Val Pro Gln Thr His  
 20 25 30

Gln Ser His Phe Leu Leu Thr Ala Leu Gly Leu Ala Leu Thr  
 35 40 45

<210> 136  
 <211> 77  
 <212> PRT

<213> Homo sapiens

<400> 136

Met Thr Cys Pro Gly Gly Glu Thr Gly Trp Gly Cys Leu Arg Met Asp  
1 5 10 15

Pro Arg Glu Trp Val Ser Ser Pro Asp Gln Gln Asn Leu Arg Met Cys  
20 25 30

Ala Trp Ile Gln Pro His Leu Lys Leu Gly Leu His Phe Val Ser Gly  
35 40 45

Ala Pro Asn Ala Leu Cys Leu Gly Cys Leu Tyr Ser Trp His Thr Gly  
50 55 60

Glu Ala Leu Ser Pro Ala Gly Pro Gly Cys Cys Cys Ser  
65 70 75

<210> 137

<211> 37

<212> PRT

<213> Homo sapiens

<400> 137

Met Glu Gln Glu Ser Val Pro Ser Met Ser Leu Phe Thr Arg Ile Leu  
1 5 10 15

Ser Gln Pro Ser Leu Phe Pro Trp Gln Ala Leu His Arg Glu Thr Gly  
20 25 30

Lys Arg Ser Thr Val  
35

<210> 138

<211> 59

<212> PRT

<213> Homo sapiens

<400> 138

Met Leu Leu Pro Leu Pro Ala Ile Ser Phe Pro Cys Asn Ser Leu Phe  
1 5 10 15

His Pro Ala Asp Ala Ser Ser Leu Ser Trp Leu Ser Ser Lys Ser Tyr  
20 25 30

Pro Leu Gly Lys Leu Thr Arg Met Leu Gln Ser Asp Gly Val Ser Pro  
35 40 45

Pro Gly Pro Pro Gln Thr Leu Tyr Phe Leu Leu  
 50 55

<210> 139  
 <211> 50  
 <212> PRT  
 <213> Homo sapiens

<400> 139

Met Asp Asn Lys Cys Leu Thr Leu Thr Asn Tyr Leu Ala Ile Met Gly  
 1 5 10 15

Phe Phe Asp Gln Lys Ser Ser Lys Arg Val Trp Trp Gly Leu Arg Asp  
 20 25 30

Pro Ser Ser Leu Pro Lys Asn Met Lys Ser Phe His Phe Gln Tyr Val  
 35 40 45

Lys Thr  
 50

<210> 140  
 <211> 72  
 <212> PRT  
 <213> Homo sapiens

<400> 140

Met Arg Val Val Phe Lys Ile Thr Phe Cys Arg Val Val Cys Ser Thr  
 1 5 10 15

Leu Met Leu Lys Gly Ser His Leu Pro Gln Pro Ile Lys Leu Cys Cys  
 20 25 30

Leu Cys Ser Ala Phe Tyr His Lys Asn Met Thr Phe Lys His Lys Asn  
 35 40 45

Thr Leu Tyr Ser Thr Thr Lys Asn Arg Asn Asp Ile Tyr Leu His Cys  
 50 55 60

Phe Pro Ile Ser Leu His Leu Tyr  
 65 70

<210> 141  
 <211> 863  
 <212> PRT  
 <213> Homo sapiens

<400> 141

Met Pro Glu Gln His Lys Asp Pro Arg Val Gln Glu Asn Pro Asp Asp  
 1 5 10 15  
 Gln Arg Thr Val Pro Glu Val Thr Gly Asp Ala Arg Ser Ala Phe Trp  
 20 25 30  
 Pro Leu Arg Asp Asn Gly Gly Pro Ser Pro Phe Val Pro Arg Pro Gly  
 35 40 45  
 Pro Leu Gln Thr Asp Leu His Ala Gln Ser Ser Glu Ile Arg Tyr Asn  
 50 55 60  
 His Thr Ser Gln Thr Ser Trp Thr Ser Ser Thr Lys Arg Asn Ala  
 65 70 75 80  
 Ile Ser Ser Ser Tyr Ser Ser Thr Gly Gly Leu Pro Gly Leu Lys Gln  
 85 90 95  
 Arg Arg Gly Pro Ala Ser Ser Arg Cys Gln Leu Thr Leu Ser Tyr Ser  
 100 105 110  
 Lys Thr Val Ser Glu Asp Arg Pro Gln Ala Val Ser Ser Gly His Thr  
 115 120 125  
 Arg Cys Glu Lys Gly Ala Asp Thr Ser Pro Gly Gln Thr Ile Ala Pro  
 130 135 140  
 Thr Gly Gly Ser Pro Arg Ser His Asp Ser Arg Pro Arg Arg Arg Lys  
 145 150 155 160  
 Ile Pro Leu Leu Pro Arg Arg Arg Gly Glu Pro Leu Met Leu Pro Pro  
 165 170 175  
 Pro Leu Glu Leu Gly Tyr Arg Val Thr Ala Glu Asp Leu His Leu Glu  
 180 185 190  
 Lys Glu Thr Ala Phe Gln Arg Ile Asn Ser Ala Leu His Val Glu Asp  
 195 200 205  
 Lys Ala Ile Pro Asp Cys Arg Pro Ser Arg Pro Ser His Thr Leu Ser  
 210 215 220  
 Ser Leu Ala Thr Gly Ala Ser Gly Gly Pro Pro Val Ser Lys Ala Pro  
 225 230 235 240

Thr Met Asp Ala Gln Gln Asp Arg Pro Lys Ser Gln Asp Cys Leu Gly  
 245 250 255

Leu Val Ala Pro Leu Ala Ser Ala Ala Glu Val Pro Ala Thr Ala Pro  
 260 265 270

Val Ser Gly Lys Lys His Arg Pro Pro Gly Pro Leu Phe Ser Ser Ser  
 275 280 285

Asp Pro Leu Pro Ala Asn Ser Ser His Ser Arg Asp Ser Ala Gln Val  
 290 295 300

Thr Ser Met Ile Pro Ala Pro Phe Thr Ala Ala Ser Arg Asp Ala Gly  
 305 310 315 320

Met Arg Arg Thr Arg Ser Ala Pro Ala Ala Ala Ala Ala Pro Pro  
 325 330 335

Pro Ser Thr Leu Asn Pro Thr Ser Gly Ser Leu Leu Asn Ala Val Asp  
 340 345 350

Gly Gly Pro Ser His Phe Leu Ala Ser Ala Thr Ala Ala Ala Arg Ala  
 355 360 365

Gln Arg Ser Glu Val Arg Tyr Asn Gln Arg Ser Gln Thr Ser Arg Thr  
 370 375 380

Arg Ser Cys Leu Lys Arg Asn Ala Ser Ser Ser Ser His Ser Ser Thr  
 385 390 395 400

Glu Gly Leu Gln Glu Val Lys Arg Arg Arg Gly Pro Ala Ser Ser His  
 405 410 415

Cys Gln Leu Ala His Ser Ser Ser Asn Thr Val Ser Glu Asp Gly Pro  
 420 425 430

Gln Ala Val Ser Ser Gly His Arg Cys Glu Asn Lys Ala Gly Thr Ala  
 435 440 445

Pro Gly Gln Thr Leu Ala Pro Arg Gly Gly Ser Pro Arg Ser Gln Ala  
 450 455 460

Ser Arg Pro His Ile Asn Thr Ala Leu His Val Glu Asp Lys Ala Ile  
 465 470 475 480

Ser Asp Cys Arg Pro Ser Arg Pro Ser His Thr Leu Ser Ser Leu Ala

485

490

495

Thr Gly Ala Ser Gly Gly Pro Pro Val Ser Lys Ala Pro Thr Met Asp  
 500 505 510

Ala Gln Gln Asp Arg Pro Lys Ser Gln Asp Ser Leu Gly Leu Leu Ala  
 515 520 525

Pro Leu Ala Ser Ala Ala Glu Val Pro Ser Thr Ala Pro Val Ser Gly  
 530 535 540

Lys Lys His Arg Pro Pro Gly Pro Leu Phe Ser Ser Ser Asp Pro Leu  
 545 550 555 560

Pro Ala Thr Ser Tyr His Ser Arg Asp Thr Ala Gln Val Thr Ser Leu  
 565 570 575

Ile Pro Ala Thr Phe Thr Ala Ala Ser Arg Asp Ala Gly Met Arg Arg  
 580 585 590

Thr Arg Ser Ala Pro Ala Ala Ala Thr Ala Ala Pro Pro Pro Ser Thr  
 595 600 605

Leu Asn Asn Thr Ser Gly Ser Leu Leu Asn Ala Val Asp Gly Gly Pro  
 610 615 620

Ser His Phe Leu Ala Ser Ala Thr Ala Ala Ala Arg Ala Gln Arg Ser  
 625 630 635 640

Glu Val Arg Tyr Asn Gln Arg Ser Gln Thr Ser Arg Thr Arg Ser Cys  
 645 650 655

Leu Lys Arg Asn Ala Ser Ser Ser Ser Ser Ser His Ser Ser Thr Glu  
 660 665 670

Gly Leu Gln Glu Val Lys Arg Arg Arg Gly Pro Ala Ser Ser His Cys  
 675 680 685

Gln Leu Ala His Ser Ser Ser Asn Thr Val Ser Glu Asp Gly Pro Gln  
 690 695 700

Ala Val Ser Ser Gly His Arg Cys Glu Asn Lys Ala Gly Thr Ala Pro  
 705 710 715 720

Gly Gln Thr Leu Ala Pro Arg Gly Gly Ser Pro Arg Ser Gln Ala Ser  
 725 730 735

Arg Pro His Ile Asn Ser Ala Leu His Val Glu Asp Lys Ala Ile Ser  
                   740                                  745                                  750

Asp Cys Arg Pro Ser Arg Pro Ser His Thr Leu Ser Ser Leu Ala Thr  
                   755                                  760                                  765

Gly Ala Ser Gly Gly Pro Pro Val Ser Lys Ala Pro Thr Met Asp Ala  
                   770                                  775                                  780

Gln Gln Asp Arg Pro Lys Ser Gln Asp Cys Leu Gly Leu Leu Ala Pro  
                   785                                  790                                  795                                  800

Leu Ala Ser Ala Ala Glu Val Phe Ser Thr Ala Pro Val Ser Gly Lys  
                                   805                                  810                                  815

Lys His Arg Pro Pro Gly Pro Leu Phe Ser Ser Ser Asp Pro Leu Pro  
                                   820                                  825                                  830

Ala Thr Ser Ser His Ser Gly Asp Ser Ala Gln Asp Thr Ser Leu Ile  
                   835                                  840                                  845

Pro Ala Pro Phe Thr Pro Ala Ser Arg Asp Ala Gly Ile Arg Arg  
                   850                                  855                                  860

<210> 142  
 <211> 29  
 <212> PRT  
 <213> Homo sapiens

<400> 142

Met Ser Tyr Leu Ser Leu Leu Leu Ile Ser Ile Phe Met Val Cys Tyr  
   1                                  5                                  10                                  15

Phe Lys Arg Asn Ser Phe Pro Ile Thr Ile Leu Phe Ser  
                                   20                                  25

<210> 143  
 <211> 32  
 <212> PRT  
 <213> Homo sapiens

<400> 143

Met Pro Trp Pro Met Pro Ile Cys Thr Gly Thr Gln Gly Val Leu Thr  
   1                                  5                                  10                                  15

His Arg Gln Gly Pro Pro Pro Ala Ala Val Gly Val Ser Pro His Thr

80

20

25

30

<210> 144  
<211> 29  
<212> PRT  
<213> Homo sapiens

<400> 144

Met Asn Ala Phe Leu Leu Glu Arg Met Thr Glu Ser Gln Ala Met Asp  
1 5 10 15

Ile Gln Thr Cys Ile Phe Gln Thr Leu Leu Glu Asn Lys  
20 25

<210> 145  
<211> 48  
<212> PRT  
<213> Homo sapiens

<400> 145

Met Ile Val Thr Asn Thr Ile Leu Lys Phe Ile His Lys Lys Pro Thr  
1 5 10 15

Thr Ile Thr Pro Thr Lys Gln His Gly Ile Ile Phe Ser Val Pro Glu  
20 25 30

Ala Lys Val Arg Ala Leu Leu Cys Phe Leu Leu Arg Met Pro Ser Pro  
35 40 45

<210> 146  
<211> 55  
<212> PRT  
<213> Homo sapiens

<400> 146

Gly Gln Ala Leu Trp Leu Met Pro Val Ile Pro Val Val Ala Lys Ala  
1 5 10 15

Glu Gly Lys Asp His Leu Arg Pro Gly Val Ala Asn Gln Pro Gly Gln  
20 25 30

His Ser Lys Thr Leu Phe Leu Gln Lys Lys Asn Phe Ala Lys Leu Ala  
35 40 45

Glu His Gly Gly Ala Cys Leu  
50 55

<210> 147



<211> 55  
 <212> PRT  
 <213> Homo sapiens

<400> 147

Met Ser Arg Phe Arg Ile Gln Thr Ser Glu Thr Ala Pro Ile Pro Leu  
 1 5 10 15

Val Ser His Pro His Thr Pro Leu Ser Asn Asn Asn Asn Leu His Leu  
 20 25 30

Gly Asn Val Cys Tyr Val Pro Gly His Thr Gly Ile Ile Ser Cys Thr  
 35 40 45

Pro His Arg His Leu Ile Lys  
 50 55

<210> 148  
 <211> 50  
 <212> PRT  
 <213> Homo sapiens

<400> 148

Met Gln Gly Leu His Leu Pro Gln Gly Leu Gly Thr Cys Tyr Ser Ile  
 1 5 10 15

Cys Leu Gln Cys Leu Ser Pro His Gly Tyr Phe Phe Val Ala Val Gly  
 20 25 30

Leu Ser Ser Asn Val Met Ser Pro Thr Ser Leu Pro Lys Ala Val Leu  
 35 40 45

Pro Thr  
 50

<210> 149  
 <211> 31  
 <212> PRT  
 <213> Homo sapiens

<400> 149

Met Leu Pro Val Asn Ile Ser His Pro Leu Ser Arg Gly Asn Pro Leu  
 1 5 10 15

Leu Ser Ser Lys Phe Ser Lys Phe Phe Leu Ile Glu Phe Ser Gln  
 20 25 30

<210> 150

<211> 36  
 <212> PRT  
 <213> Homo sapiens

<400> 150

Met Asp Tyr Ser Leu Ser Phe Asp Asn Tyr Thr Trp Gly Phe Gly Glu  
 1 5 10 15

Pro Arg Ile Lys Val Gln Ser Phe Asn Asp Leu Leu Ala Pro Gly Leu  
 20 25 30

Thr Gln Glu His  
 35

<210> 151  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 151

Met Ile Arg Ser Lys Gly Thr Asn Phe Gln Ile Leu Ala Glu Leu Phe  
 1 5 10 15

Lys Gly Met Asp Phe Leu Trp Leu Gln Leu Ala Arg Leu Phe Gln Lys  
 20 25 30

Ala Cys Pro Trp Leu Thr Ala Cys Leu Ala Gln Phe Leu Arg Ser Pro  
 35 40 45

Leu Val Met Glu Asn Arg Ala Asp Arg Ile Gln Met Ala Arg Phe His  
 50 55 60

Arg Gly Gln Gly Gly Pro Gln Ser Ala Asn Gln Gly Arg Leu Arg Pro  
 65 70 75 80

Glu Lys Gly Ile Ser  
 85

<210> 152  
 <211> 73  
 <212> PRT  
 <213> Homo sapiens

<400> 152

Met Asp Arg Phe Leu Asn Ser Lys Ala Arg Arg Leu Gly Ser Cys Ser  
 1 5 10 15

His Pro Ala Phe Tyr Leu Leu Cys Val Pro Asp Glu Asp Thr Ser Cys

20

25

30

Ser Thr Met Tyr Leu Pro Leu Lys Arg Arg Ala Asp Pro Asp Gln Leu  
 35 40 45

Phe Ser Asp Leu Leu Gly Gly Thr Gln Arg Leu Trp Arg Leu Trp Pro  
 50 55 60

Ser Leu Ala Ser Val Glu Ser Gly Leu  
 65 70

<210> 153  
 <211> 63  
 <212> PRT  
 <213> Homo sapiens  
 <220>  
 <221> MISC\_FEATURE  
 <222> (5)..(43)  
 <223> X=any amino acid

<400> 153

Met Gln Cys Thr Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Lys Ile Lys Phe Gly  
 35 40 45

Met Lys Gln Glu Leu Ser Trp Thr Ile Tyr Asn Leu Leu Arg Tyr  
 50 55 60

<210> 154  
 <211> 46  
 <212> PRT  
 <213> Homo sapiens

<400> 154

Met Arg Cys Leu Leu Ala Asp Ser Ser Leu Gln Met Gln Pro Gly Asp  
 1 5 10 15

Val Thr Leu Arg Leu Glu Ser Cys Gly Ser Asn Pro Arg Gln Arg Gln  
 20 25 30

Leu His Gln Val Leu Val Trp Val Arg Asn Arg Gly Lys Gly  
 35 40 45

<210> 155  
 <211> 72  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MISC\_FEATURE  
 <222> (22)..(22)  
 <223> X=any amino acid

<400> 155

Met Pro Pro Arg Gly Trp Ala Cys Pro Ser Ser Gly Pro Pro Ala Pro  
 1 5 10 15

Gly Pro Gly Arg Trp Xaa Arg Ala Ala Ala Gly Gly Leu Arg Arg Thr  
 20 25 30

Arg Cys Asp Trp Leu Pro Leu Arg Arg Thr Gln Met Ser Leu Arg Arg  
 35 40 45

Ile Asp Leu Leu Pro Ser Pro Ala Gly Gln Ala Gln Ala Gly Ser Glu  
 50 55 60

Asn Tyr Leu Pro Leu Phe Ile Ser  
 65 70

<210> 156  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MISC\_FEATURE  
 <222> (10)..(10)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (13)..(14)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (16)..(16)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (20)..(20)

<223> X=any amino acid

<400> 156

Met Val Phe Ile Phe Ser Thr Thr Ile Xaa Phe Phe Xaa Xaa Glu Xaa  
1 5 10 15

Glu Ser Cys Xaa  
20

<210> 157

<211> 66

<212> PRT

<213> Homo sapiens

<400> 157

Met Ser Leu Thr Tyr Ser Trp Lys Lys Ser Lys Val Thr Lys Phe Asn  
1 5 10 15

Leu Ser Thr Leu Arg Met Thr Val Thr Asn Lys Asn Arg Thr Val Gln  
20 25 30

Lys Cys Ala Lys Asp Thr Arg Lys Leu Asn Asn Ile Asn Ser Met Ile  
35 40 45

Ile Val Ile Leu Tyr Thr Met Glu Ser Lys Gln Ile Phe Phe His Gly  
50 55 60

Asn Ser  
65

<210> 158

<211> 41

<212> PRT

<213> Homo sapiens

<400> 158

Met Met Thr Gly Glu Ala Arg Glu Ser Gln Ile Ala Leu Tyr Lys Gln  
1 5 10 15

Arg Phe Arg Glu Phe Arg Glu Glu Gly Arg Thr Ile Tyr Lys Gly Arg  
20 25 30

Trp Lys Arg Ser His Leu Ala Glu Gly  
35 40

<210> 159

<211> 31

<212> PRT  
 <213> Homo sapiens

<220>  
 <221> MISC\_FEATURE  
 <222> (7)..(7)  
 <223> X=any amino acid

<400> 159

Met Leu Glu Leu Gly Leu Xaa Pro Lys Leu Thr Ser Glu Tyr Arg Phe  
 1 5 10 15

Pro Pro Asn Cys Met Ile Leu His Ile Trp Ser Gln Leu Glu Val  
 20 25 30

<210> 160  
 <211> 75  
 <212> PRT  
 <213> Homo sapiens

<400> 160

Met Tyr Ile Tyr Ile Cys His His Phe Lys Asn Gln Ala Phe Lys Val  
 1 5 10 15

Lys Leu Ser Phe Pro His Ile Phe Phe His Ser Ile Phe Tyr Gln Tyr  
 20 25 30

Arg His Ser Leu Leu Leu Leu Ser Phe Gln Phe Pro Ile Ile Ser Ser  
 35 40 45

His Pro Ile Phe Cys Ala Ser Ser Val Phe Lys Thr His Ser Pro Ser  
 50 55 60

Ala Ala Met Ala Pro Thr Ile Ile Phe Ile Thr  
 65 70 75

<210> 161  
 <211> 36  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MISC\_FEATURE  
 <222> (7)..(13)  
 <223> X=any amino acid

<400> 161

Met Lys Arg Gly Asn Leu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Thr Pro  
 1 5 10 15

Cys Lys Asp Trp Ser His Thr Ala Met Ser Gln Glu Pro Pro Val Leu  
                   20                  25                  30

Val Arg Val Leu  
                   35

<210> 162  
 <211> 24  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MISC\_FEATURE  
 <222> (9)..(9)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (20)..(20)  
 <223> X=any amino acid

<400> 162

Met Trp Ala Ala Trp Arg Arg Arg Xaa Asn Gly Phe Phe Pro Arg Ile  
 1                  5                  10                  15

Pro Gly Lys Xaa Arg Gly Pro Asn  
                   20

<210> 163  
 <211> 31  
 <212> PRT  
 <213> Homo sapiens

<400> 163

Met Cys His Ser Leu Tyr Arg Phe Leu Asn Cys His Ser Arg Tyr Tyr  
 1                  5                  10                  15

Ile Val Tyr Thr Tyr Leu Thr Ile Phe Tyr Trp Cys His His Phe  
                   20                  25                  30

<210> 164  
 <211> 134  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MISC\_FEATURE  
 <222> (2)..(22)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (39)..(67)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (79)..(113)  
 <223> X=any amino acid

<400> 164

Met Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Ala Gly Lys Arg Glu Asn Gln Lys Asp Ser  
 20 25 30

Ser Val Arg Arg Thr Trp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 35 40 45

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 50 55 60

Xaa Xaa Xaa Arg Phe Ser Pro Arg Ala Tyr Arg Lys Lys Val Xaa Xaa  
 65 70 75 80

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 85 90 95

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 100 105 110

Xaa Arg His Asn Arg Lys Leu Ile His Leu Ser Ser Lys Phe Leu Ile  
 115 120 125

Ile Asn Val Ile Ala Ser  
 130

<210> 165  
 <211> 51  
 <212> PRT  
 <213> Homo sapiens

<400> 165

Met Ser Lys Val Asp Leu Phe Ile Thr Asp Ser Phe Lys Lys Phe Asn  
 1 5 10 15



Gln Tyr Leu Leu Ala Thr Tyr Ser Thr Ser Gly Thr Gln Gly Ile Trp  
                   20                  25                  30

Ser Thr Thr Met Lys Lys Arg Asp Trp Thr Leu Lys Glu His Arg Ser  
           35                  40                  45

Cys His Phe  
       50

<210> 166  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<400> 166

Met Ser Asp Ser Arg Leu Cys Ser Cys Phe Leu His Thr Leu Ile Phe  
   1                  5                  10                  15

Leu Asn Ile Ser Lys Ile Gln Ser Gly Ser Lys Ile Thr Cys Lys Asn  
           20                  25                  30

Ile Leu Ala Gln Glu Phe Asp Arg Leu Lys Ile Asn Tyr Leu Lys Tyr  
           35                  40                  45

Ile Lys Gln Glu Val Tyr Leu Leu Tyr Ser Met Tyr  
       50                  55                  60

<210> 167  
 <211> 15  
 <212> PRT  
 <213> Homo sapiens

<400> 167

Met Val Phe Gln Lys Thr Ser Leu Tyr Ser Asn Asn Ile Leu Leu  
   1                  5                  10                  15

<210> 168  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 168

Cys Pro Ala Ala Tyr Thr Val Phe Leu Thr Arg Ile Ile Val Lys Tyr  
   1                  5                  10                  15

Tyr Leu Asn Arg Gly Leu Phe Ser Glu Thr Pro Ser Asn Leu Lys Val  
           20                  25                  30

Glu Glu Lys Gly Trp Val Trp Trp Leu Met Pro Val Thr Pro Ala Leu  
           35                          40                          45

Trp Glu Ala Glu Ala Gly Gly Ser Leu Glu Leu Ser Leu Arg Pro Gly  
       50                          55                          60

Trp Ala Thr Pro Ser Leu Pro Lys Asn Thr Lys Met Ser Gln Ala Trp  
  65                          70                          75                          80

Trp Cys Thr Pro Val Val Pro Ala Ala Leu Gly Ala Glu Val Gly Gly  
                           85                          90                          95

Arg Leu Gly Pro Arg Arg Trp Arg Leu Gln  
                           100                          105

<210> 169  
 <211> 19  
 <212> PRT  
 <213> Homo sapiens

<400> 169

Met Gly Pro Asp Arg Leu Lys Gln Lys Ser Asn Thr Ala Val Val Ser  
   1                          5                          10                          15

Arg Trp Ile

<210> 170  
 <211> 47  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MISC\_FEATURE  
 <222> (3)..(4)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (13)..(13)  
 <223> X=any amino acid

<220>  
 <221> MISC\_FEATURE  
 <222> (16)..(16)  
 <223> X=any amino acid

<400> 170

Met Asp Xaa Xaa Lys Trp Arg Met Arg Arg Gln Pro Xaa Ile Asn Xaa  
 1 5 10 15

Met Tyr Gln Thr Val Thr Ile Cys Glu Glu Tyr Cys Val Tyr Thr Asn  
 20 25 30

Arg Lys Gln Leu Lys Ala Phe Asn Met Cys Gly Trp Gly Glu Arg  
 35 40 45

<210> 171  
 <211> 197  
 <212> PRT  
 <213> Homo sapiens

<400> 171

Gln Glu Ala Gln Ile Met Lys Lys Leu Arg His Asp Lys Leu Val Pro  
 1 5 10 15

Leu Tyr Ala Val Val Ser Glu Glu Pro Ile Tyr Ile Val Thr Glu Phe  
 20 25 30

Met Ser Lys Gly Ala Tyr Ser Leu Ser Ile Arg Asp Trp Asp Glu Ile  
 35 40 45

Arg Gly Asp Asn Val Lys His Tyr Lys Ile Arg Lys Leu Asp Asn Gly  
 50 55 60

Gly Tyr Tyr Ile Thr Thr Arg Ala Gln Phe Asp Thr Leu Gln Lys Leu  
 65 70 75 80

Val Lys His Tyr Thr Glu His Ala Asp Gly Leu Cys His Lys Leu Thr  
 85 90 95

Thr Val Cys Pro Thr Val Lys Pro Gln Thr Gln Gly Leu Ala Lys Asp  
 100 105 110

Ala Trp Glu Ile Pro Arg Glu Ser Leu Arg Leu Glu Val Lys Leu Gly  
 115 120 125

Gln Gly Cys Phe Gly Glu Val Trp Met Gly Thr Trp Asn Gly Thr Thr  
 130 135 140

Lys Val Ala Ile Lys Thr Leu Lys Pro Gly Thr Met Met Pro Glu Ala  
 145 150 155 160

Phe Leu Gln Glu Ala Gln Ile Met Lys Lys Leu Arg His Asp Lys Leu

92

165

170

175

Val Pro Leu Tyr Ala Val Val Ser Glu Glu Pro Ile Tyr Ile Val Thr  
180 185 190

Glu Phe Met Ser Lys  
195

<210> 172  
<211> 59  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MISC\_FEATURE  
<222> (28)..(49)  
<223> X=any amino acid

<400> 172

Met Cys Ile Met His Ile Asn Thr Phe Asn Leu Cys Asn His Leu Met  
1 5 10 15

Arg Trp Leu Leu Leu Lys Ser Pro Leu Cys Thr Xaa Xaa Xaa Xaa Xaa  
20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
35 40 45

Xaa Gln Lys Pro Lys Pro Thr Val His Gly Ile  
50 55

<210> 173  
<211> 56  
<212> PRT  
<213> Homo sapiens

<220>  
<221> MISC\_FEATURE  
<222> (14)..(21)  
<223> X=any amino acid

<400> 173

Met Lys Pro Ile Arg Gln Leu Val Pro Phe Thr Leu Glu Xaa Xaa Xaa  
1 5 10 15

Xaa Xaa Xaa Xaa Xaa Leu Tyr Leu Glu His Leu Thr Cys Arg Lys Arg  
20 25 30

Arg Gly Lys Thr Phe Leu Gly Lys Arg Lys Ala Val Ala Val Pro Lys  
           35                  40                  45

Ser Lys His Phe Trp Gln Gly Phe  
      50                  55

<210> 174  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 174

Met Leu Lys His Leu Gln Val Leu Asp Leu His Gln Cys Ser Leu Thr  
   1                  5                  10                  15

Ala Asp Asp Val Met Ser Leu Thr Gln Val Ile Pro Leu Leu Ser Asn  
          20                  25                  30

Leu Gln Glu Leu Asp Leu Ser Ala Asn Lys Lys Met Gly Ser Ser Ser  
          35                  40                  45

Glu Asn Leu Leu Ser Arg Leu Arg Phe Leu Pro Ala Leu Lys Ser Leu  
   50                  55                  60

Val Ile Asn Asn Cys Ala Leu Glu Ser Glu Thr Phe Thr Ala Leu Ala  
   65                  70                  75                  80

Glu Ala Ser Val His Leu Ser Ala Leu Glu Val Phe Asn Leu Ser Trp  
          85                  90                  95

Glu Gln Val Cys Trp Trp Ala Thr  
          100

<210> 175  
 <211> 490  
 <212> PRT  
 <213> Homo sapiens

<400> 175

Met Ser Gln Thr Arg Lys Lys Thr Ser Ser Glu Gly Glu Thr Lys Pro  
   1                  5                  10                  15

Gln Thr Ser Thr Val Asn Lys Phe Leu Arg Gly Ser Asn Ala Glu Ser  
          20                  25                  30

Arg Lys Glu Asp Asn Asp Leu Lys Thr Ser Asp Ser Gln Pro Ser Asp  
          35                  40                  45

Trp Ile Gln Lys Thr Ala Thr Ser Glu Thr Ala Lys Pro Leu Ser Ser  
50 55 60

Glu Met Glu Trp Arg Ser Ser Met Glu Lys Asn Glu His Phe Leu Gln  
65 70 75 80

Lys Leu Gly Lys Lys Ala Val Asn Lys Cys Leu Asp Leu Asn Asn Cys  
85 90 95

Gly Leu Thr Thr Ala Asp Met Lys Glu Met Gly Glu Ala Phe Glu Met  
100 105 110

Ile Pro Glu Leu Glu Glu Leu Asn Leu Ser Trp Asn Ser Lys Val Gly  
115 120 125

Gly Asn Leu Pro Leu Ile Leu Gln Lys Phe Gln Lys Gly Ser Lys Ile  
130 135 140

Gln Met Ile Glu Leu Val Ala Cys Ser Leu Thr Ser Glu Asp Gly Thr  
145 150 155 160

Phe Leu Gly Gln Leu Leu Pro Met Leu Gln Ser Leu Glu Val Leu Asp  
165 170 175

Leu Ser Ile Asn Arg Asp Ile Val Gly Ser Leu Asn Ser Ile Ala Gln  
180 185 190

Gly Leu Lys Ser Thr Ser Asn Leu Lys Val Leu Lys Leu His Ser Cys  
195 200 205

Gly Leu Ser Gln Lys Ser Val Lys Ile Leu Asp Ala Ala Phe Arg Tyr  
210 215 220

Leu Gly Glu Leu Arg Lys Leu Asp Leu Ser Cys Asn Lys Asp Leu Gly  
225 230 235 240

Gly Gly Phe Glu Asp Ser Pro Ala Gln Leu Val Met Leu Lys His Leu  
245 250 255

Gln Val Leu Asp Leu His Gln Cys Ser Leu Thr Ala Asp Asp Val Met  
260 265 270

Ser Leu Thr Gln Val Ile Pro Leu Leu Ser Asn Leu Gln Glu Leu Asp  
275 280 285

Leu Ser Ala Asn Lys Lys Met Gly Ser Ser Ser Glu Asn Leu Leu Ser  
 290 295 300

Arg Leu Arg Phe Leu Pro Ala Leu Lys Ser Leu Val Ile Asn Asn Cys  
 305 310 315 320

Ala Leu Glu Ser Glu Thr Phe Thr Ala Leu Ala Glu Ala Ser Val His  
 325 330 335

Leu Ser Ala Leu Glu Val Phe Asn Leu Ser Trp Asn Lys Cys Val Gly  
 340 345 350

Gly Asn Leu Lys Leu Leu Leu Glu Thr Leu Lys Leu Ser Met Ser Leu  
 355 360 365

Gln Val Leu Arg Leu Ser Ser Cys Ser Leu Val Thr Glu Asp Val Ala  
 370 375 380

Leu Leu Ala Ser Val Ile Gln Thr Gly His Leu Ala Lys Leu Gln Lys  
 385 390 395 400

Leu Asp Leu Ser Tyr Asn Asp Ser Ile Cys Asp Ala Gly Trp Thr Met  
 405 410 415

Phe Cys Gln Asn Val Arg Phe Leu Lys Glu Leu Ile Glu Leu Asp Ile  
 420 425 430

Ser Leu Arg Pro Ser Asn Phe Arg Asp Cys Gly Gln Trp Phe Arg His  
 435 440 445

Leu Leu Tyr Ala Val Thr Lys Leu Pro Gln Ile Thr Glu Ile Gly Met  
 450 455 460

Lys Arg Trp Ile Leu Pro Ala Ser Gln Glu Glu Glu Leu Glu Cys Phe  
 465 470 475 480

Asp Gln Asp Lys Lys Lys Lys His Ser Leu  
 485 490

<210> 176

<211> 136

<212> PRT

<213> Homo sapiens

<400> 176

Met His Leu Leu Ser Asp Gly Lys Glu Gly Ser Thr Tyr Lys Pro Phe  
 1 5 10 15

Gln Glu Ile Ser Ser Ser Ser Lys Ser Gly Arg Lys Gly Ser Lys Ala  
 20 25 30

Thr Ile Ser Phe Met Ser Ala Val Val Asn Pro Gln Leu Phe Lys Ser  
 35 40 45

Arg His Leu Leu Thr Ala Phe Leu Pro Ser Phe Cys Arg Lys Cys Ser  
 50 55 60

Phe Phe Ser Ile Leu Asp Leu His Ser Ile Ser Glu Leu Arg Gly Leu  
 65 70 75 80

Ala Val Ser Glu Val Ala Val Phe Cys Ile Gln Ser Leu Gly Trp Glu  
 85 90 95

Ser Leu Val Leu Arg Ser Leu Ser Ser Phe Leu Leu Ser Ala Leu Glu  
 100 105 110

Pro Leu Arg Asn Leu Leu Thr Val Glu Val Trp Gly Leu Val Ser Pro  
 115 120 125

Ser Glu Glu Val Phe Phe Leu Val  
 130 135